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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,611	01/11/2001	Todd Vincent Graves	9D-RG-19587	8977

7590 10/08/2003
John S. Beulick
Armstrong Teasdale LLP
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St. Louis, MO 63102

EXAMINER

LEUNG, PHILIP H

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 10/08/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,611

Applicant(s)

GRAVES ET AL.

Examiner

Philip H Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. Applicant's election with traverse of claims 1-28 in Paper No. 12 is acknowledged. The traversal is on the ground(s) that the claims are related and would not be a burden. This is not found persuasive because as pointed out in the requirement, the method of Group II clearly does not require the combination oven of Group I and the search would be much more extensive and would be a burden to the Examiner without the restriction requirement. Anyway the issue appears moot in view of the facts that the non-elected claims 29-34 have all been cancelled. Anyway, the requirement is still deemed proper and is therefore made FINAL.

2. In view of the papers filed 6-20-03, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by adding Jon Arthur Roepke.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

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3. From the amendment filed 7-23-03 It is not clear if claim 2 is cancelled or not. It is stated in the "Marked up Claims" that claim 2 is to be cancelled but not in the amendment itself.

Clarification is required, however, it is assumed that claim 2 remains uncanceled.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-14 and 17-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Larsen et al* (US 4,332,992) (reference A cited in the previous Office action), in view of *Westerberg et al* (US Re. 36,724) (reference AA previously cited by the applicants) or *Shin* (US 6,005,235) (newly cited).

Larsen shows an oven having a cooking cavity 12, a plurality of modules for delivering energy into the cavity, including a resistance heater 17 for convectional radiant energy and thermal energy and a magnetron 18 for microwave energy and a control 20 configured to operation a microwave cooking mode 42, a convection/bake cooking mode 38 and a speedcook combination mode 40 with separate temperature and power level control 30 and 32 (see Figures 1 and 7 and col. 3, line 64 - col. 4, line 53). Although it does not expressly state that the resistance heater 17 is a source of radiant energy, however, such is inherent as resistance heaters in an

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electrical oven heat food by both radiation and thermal conduction. Such resistance heaters include sheath heaters as claimed (see claim 3). *Larsen* also fails to show the use of a lower heater. *Westerberg* or *Shin* shows that it is well known in the art of electrical ovens to provide an upper radiant heater and a lower heater inside the cooking cavity of a microwave oven so that food can be heated from above and below by radiation energy in addition to microwave energy (see *Westerberg*, Figures 1 and 2 and col. 4, lines 55-65 and *Shin*, Figure 1 and col. 1, lines 18-61 and col. 3, lines 6-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Larsen* to use lamps as radiant heat sources above and below the food to be heated for more uniform and speedy heating result, in view of the teaching of *Westerberg* or *Shin*. In regard to claims 11-14 and 22-24, *Westerberg* also teaches to independently control each upper and lower heaters depending on the type of food being cooked (see col. 3, line 66 - col. 4, line 10).

6. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Larsen et al* (US 4,332,992), in view of *Westerberg et al* (US Re. 36,724) or *Shin* (US 6,005,235) as applied to claims 1-14 and 17-28 above, and further in view of *McKee et al* (US 6,060,701) (reference C cited in the previous Office action) or *Ishifuro et al* (US 4,831,225) (previously cited by the applicants).

Larsen combined with *Westerberg* or *Shin* discloses the claimed invention except for the use of a temperature sensor for detecting the oven cavity temperature to control the operation of

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the oven. *McKee* shows a combination microwave convection oven with temperature sensing devices 30 and 30' to control the operation of the thermal energy source 25 and the hot air circulating assembly 40 (see Figures 4 and 5, col. 4, line 48 - col. 5, line 59 and col. 11, lines 1-14). *Ishifuro* also shows that it is well known in the art of microwave convective ovens to use a temperature sensor to sense the oven air temperature to control the operation of the air circulating blower 6 (see Figures 1-3, col. 2, line 42 - col. 4, line 68). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify *Larsen* to provide a temperature sensing system to monitor the temperature of the cooking cavity to feedback control the operation of the oven components such as, the heater, the microwave source and/or the blower for more precise heating control and better cooking result, in view of the teaching of *McKee* or *Ishifuro*.

7. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

8. Effective May 1, 2003, the address for mail to the USPTO is:

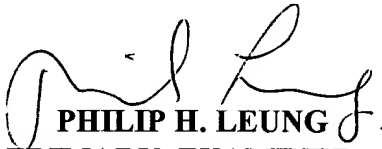
Commissioner for Patents
PO Box 1450
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9. Any inquiry concerning any communication from the examiner should be directed to Examiner Leung whose telephone number is (703) 308-1710. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg, can be reached on (703) 308-1327. The fax phone number for this Group is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.


PHILIP H. LEUNG
PRIMARY EXAMINER
ART UNIT 3742

P.Leung/pl

10-3-03